

ATTACHMENT I – Abstract

Disclosed is a method of reducing a metal-oxygen compound wherein carbon acts as a reducing agent. The method includes in a first reaction stage, passing CO gas into a reaction chamber containing the metal-oxygen compound, under conditions such that CO is converted to solid carbon and carbon dioxide thereby introducing the solid carbon so formed to said metal-oxygen compound, and in a second reaction stage, causing the carbon, introduced to the metal-oxygen compound in the first reaction stage, to reduce the metal-oxygen compound. There is present, at least in the second reaction stage, a first promoter material effective to promote the reduction of the metal-oxygen compound. The first promoter material includes a first promoter metal and/or a compound of a first promoter metal. Also disclosed is an apparatus for carrying out the reduction of a metal-oxygen compound wherein carbon acts as a reducing agent.